WHAT IS CLAIMED IS:

1. A cell culture of propagating pancreatic cells, wherein at least 50% of the cells exhibit CD56 as a cell surface marker and have an insulin:actin mRNA ratio less than 1:1.

2. The cell culture of claim 1, wherein at least 70% of the cells exhibit CD56 as a cell surface marker and have an insulin:actin mRNA ratio less than 1:1.

3. The cell culture of claim 1, wherein at least 70% of the cells exhibit CD56 as a cell surface marker and have an insulin:actin mRNA ratio less than 1:100.

4. The cell culture of claim 1, wherein at least 90% of the cells exhibit CD56 as a cell surface marker and have an insulin:actin mRNA ratio less than 1:1.

5. A cell culture of insulin producing cell aggregates, said cell culture produced from the propagating pancreatic cells of claim 1, wherein at least 50% of the cells exhibit CD56 as a cell surface marker.

6. A method of obtaining a culture of propagating pancreatic cells comprising:

(a) isolating pancreatic cells from a pancreas;

(b) contacting the pancreatic cells with a CD56 binding reagent;

(c) selecting pancreatic cells that specifically bind to the CD56 binding reagent; and

(d) separating the selected pancreatic cells from pancreatic cells that do not bind the CD56 binding reagent to obtain a culture of propagating pancreatic cells.

7. The method of claim 6, wherein the CD56 binding reagent is labeled.

8. The method of claim 6, wherein the step of selecting is done by fluorescence activated cell sorting.

9. The method of claim 6, wherein the step of selecting is done by panning.

10. The method of claim 6, wherein the CD56 binding reagent is an antibody that specifically binds to the CD56 protein.

11. The method of claim 10, wherein the CD56 binding reagent is an antibody that specifically binds to an oligosaccharide linked to the CD56 protein.

12. The method of claim 6, wherein the CD56 binding reagent is a lectin that specifically binds to an oligosaccharide linked to the CD56 protein.

13. The method of claim 6, wherein the CD56 binding reagent is a ligand of the CD56 protein.

14. The method of claim 13, wherein the ligand is selected from the group consisting of soluble CD56, heparin, and heparin sulfate.

15. The method of claim 6, wherein the pancreas is from a human.

16. The method of claim 6 which further comprises propagating the cells of step (d) and differentiating the cells into an aggregate of insulin producing cells.

17. The method of claim 16, wherein the step of differentiating the cells comprises culturing the cells on plates coated with collagen IV.

18. The method of claim 16, wherein the step of differentiating the cells comprises culturing the cells in a media comprising a differentiation factor.

19. The method of claim 18, wherein the differentiation factor is selected from the group consisting of hepatocyte growth factor, keratinocyte growth factor, and exendin-4.

20. The method of claim 18, wherein the differentiation factor is hepatocyte growth factor.

21. A method of producing an aggregate of insulin producing pancreatic cells comprising the steps of :

(a) isolating pancreatic cells from a pancreas;

(b) contacting the pancreatic cells with a CD56 binding reagent;

(c) selecting pancreatic cells that specifically bind to the CD56 binding reagent;

(d) separating the selected pancreatic cells from pancreatic cells that do not bind the CD56 binding reagent to obtain a culture of propagating pancreatic cells; and

(e) differentiating the propagating pancreatic cell culture into an aggregate of insulin producing pancreatic cells.

22. The method of claim 21, wherein the CD56 binding reagent is labeled.

23. The method of claim 21, wherein the step of selecting is done by fluorescence activated cell sorting.

24. The method of claim 21, wherein the step of selecting is done by panning.

25. The method of claim 21, wherein the CD56 binding reagent is an antibody that specifically binds to the CD56 protein.

26. The method of claim 25, wherein the CD56 binding reagent is an antibody that specifically binds to an oligosaccharide linked to the CD56 protein.

27. The method of claim 21, wherein the CD56 binding reagent is a lectin that specifically binds to an oligosaccharide linked to the CD56 protein.

28. The method of claim 21, wherein the CD56 binding reagent is a ligand of the CD56 protein.

29. The method of claim 28, wherein the ligand is selected from the group consisting of soluble CD56, heparin, and heparin sulfate.

30. The method of claim 21, wherein the pancreas is from a human.

31. The method of claim 21, wherein the step of differentiating the cells comprises culturing the cells on plates coated with collagen IV.

32. The method of claim 21, wherein the step of differentiating the cells comprises culturing the cells in a media comprising a differentiation factor.

33. The method of claim 21, wherein the differentiation factor is selected from the group consisting of hepatocyte growth factor, keratinocyte growth factor, and exendin-4.

34. The method of claim 21, wherein the differentiation factor is hepatocyte growth factor.

35. A method of providing pancreatic endocrine function to a mammal in need of such function, the method comprising the steps of:

(a) isolating pancreatic cells from a pancreas;

(b) contacting the pancreatic cells with a CD56 binding reagent;

(c) selecting pancreatic cells that specifically bind to the CD56 binding reagent;

(d) separating the selected pancreatic cells from pancreatic cells that do not bind the CD56 binding reagent to obtain a culture of propagating pancreatic cells; and

(e) implanting into the mammal the propagating pancreatic cells in an amount sufficient to produce a measurable amount of insulin in the mammal.

36. The method of claim 35, wherein the CD56 binding reagent is labeled.

37. The method of claim 35, wherein the step of selecting is done by fluorescence activated cell sorting.

38. The method of claim 35, wherein the step of selecting is done by panning.

39. The method of claim 35, wherein the CD56 binding reagent is an antibody that specifically binds to the CD56 protein.

40. The method of claim 35, wherein the CD56 binding reagent is an antibody that specifically binds to an oligosaccharide linked to the CD56 protein.

41. The method of claim 35, wherein the CD56 binding reagent is a lectin that specifically binds to an oligosaccharide linked to the CD56 protein.

42. The method of claim 35, wherein the CD56 binding reagent is a ligand of the CD56 protein.

43. The method of claim 42, wherein the ligand is selected from the group consisting of soluble CD56, heparin, and heparin sulfate.

44. The method of claim 35, wherein the pancreas is from a human.

45. The method of claim 35, wherein the mammal is a human.

46. The method of claim 35, wherein the propagating pancreatic cells differentiate into aggregates of insulin producing pancreatic cells after implantation into the mammal.

47. The method of claim 35, wherein before implantation into the mammal, the propagating pancreatic cell culture is differentiated into an aggregate of insulin producing pancreatic cells.

48. The method of claim 47, wherein the step of differentiating the cells comprises culturing the cells on plates coated with collagen IV.

49. The method of claim 47, wherein the step of differentiating the cells comprises culturing the cells in a media comprising a differentiation factor.

50. The method of claim 47, wherein the differentiation factor is selected from the group consisting of hepatocyte growth factor, keratinocyte growth factor, and exendin-4.

51. The method of claim 47, wherein the differentiation factor is hepatocyte growth factor.

52. The method of claim 47, wherein the mammal is a human.

53. A method of monitoring a culture of propagating pancreatic cells by

a) contacting the pancreatic cells with a CD56 binding reagent; and

b) determining the quantity of cells that exhibit CD56 as a cell surface marker.

54. The method of claim 53, wherein the detecting step is done by fluorescence activated cell sorting.

55. The method of claim 53, wherein the CD56 binding reagent is an antibody that binds specifically to the CD56 protein.